AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Original) An absorbent structure, comprising:

at least one absorbent layer and

at least one sensing device comprising a magnetoelastic film.

2. (Original) The absorbent structure of claim 1, wherein the least one absorbent layer comprises 0-100% of superabsorbent material.

3. (Original) The absorbent structure of claim 1, wherein the at least one absorbent layer comprises at least one acquisition layer and at least one storage layer.

4. (Original) The absorbent structure of claim 1, wherein the at least one absorbent layer comprises at least one drying layer, and wherein the absorbent layer optionally comprises a plurality of individual sheets and bonding means for joining said individual sheets.

5. (Original) The absorbent structure of claim 1, wherein the magnetoelastic film oscillates with a magnetoacoustic resonant frequency after the magnetoelastic film is excited in a magnetic field and the magnetic field is switched off.

6. (Original) The absorbent structure of claim 1, wherein the at least one sensing device is 1-20 sensing device(s).

7. (Original) The absorbent structure of claim 1, wherein the magnetoelastic film is a thin film, and wherein the magnetoelastic film comprises magnetostrictive material.

8. (Original) The absorbent structure of claim 7, wherein the magnetostrictive material is a magnetoelastic material, a soft magnetoelastic material, an amorphous magnetoelastic material, or a mixture thereof.

9. (Original) The absorbent structure of claim 1, wherein the magnetoelastic film is coated with a wetness sensitive polymer selected from the group consisting of linear and hydrophilic polymers or chemically/physically cross-linked swellable polymer gels based on polyvinyl alcohol, polyvinyl pyrrolidone, polyethylene oxide and co-polymers thereof; polyurethane; polyamides; starch and derivatives thereof; cellulose and derivatives thereof; polysaccharides; proteins; polyacrylonitrile; acrylate-based polymers; and mixtures thereof.

10. (Original) The absorbent structure of claim 1, wherein the magnetoelastic film is coated directly or indirectly with at least one detector molecule adapted to detect at least one target biological and/or chemical analyte.

11. (Original) An absorbent article comprising
the absorbent structure of claim 1,
a fluid-permeable top sheet, and
an essentially fluid-impermeable bottom sheet.

12. (Original) A diaper or pants-type diaper, comprising

the absorbent structure of claim 1,

a front-part,

a back-part, and

a crotch-part between the front and back-parts.

13. (Original) The diaper pants-type diaper of claim 12, wherein the absorbent structure comprises 1-10 sensing device(s).

14. (Original) An absorbent article comprising the absorbent structure of claim 1.

15. (Original) The absorbent article of claim 14, wherein the absorbent structure comprises

5-100% cellulose fibers, wherein said cellulose fibers are mainly comprised of fibers of chemothermomechanically-produced pulp, and between 0-95% superabsorbent material,

calculated on the total weight of the structure in a dry state.

16. (Original) A sensoring absorbent system, comprising

the absorbent structure of claim 1, and

a hand held unit comprising an excitation coil generating a magnetic field to magnetize said magnetoelastic film and optionally a pick-up coil to detect the magnetoacoustic resonant frequency.

17. (Original) The sensoring absorbent system according to claim 16, wherein the hand held unit comprises the excitation coil and the pick-up coil.

18. (Original) A method for detecting wetness, moisture, or humidity, and/or at least one biological and/or chemical analyte in an absorbent structure of claim 1, comprising the steps of

a) providing an absorbent structure of claim 1,

b) applying a magnetic field,

c) exciting the magnetoelastic film in the at least one sensing device in the absorbent structure,

d) switching the magnetic field off,

e) recording magnetoacoustic resonant frequency,

f) optionally repeating step b) to e), and

g) detecting changes in the magnetoacoustic resonant frequency, so as to detect wetness, moisture, or humidity, and/or at least one biological and/or chemical analyte in the absorbent structure.

19. (Original) The method of claim 18, wherein the magnetic field is a pulsed magnetic field.

20. (Original) The method of claim 18, wherein the magnetoelastic film excited in step c) is excited by an excitation coil.

21. (Original) The method of claim 18, wherein the recording in step e) is detected by a pick-up coil.

22. (Original) The method of claim 20, wherein the excitation coil is in a hand held unit, and wherein the hand held unit is 0-5 m from the absorbing structure when exciting the magnetoelastic film in step c).

23. (Original) The method of claim 21, wherein the pick-up coil is in a hand held unit, and wherein the hand held unit is 0-5 m from the absorbent structure when recording the magnetoacoustic resonant frequency in step e).

24. (New) A wetness sensing device for detecting wetness, wherein said wetness sensing device comprises a magnetoelastic film, and said film being coated with a material that interacts with said wetness, resulting in a change in magnetoacoustic oscillations such that a first magnetoacoustic resonant frequency at said sensing device evoked when said sensing device is not influenced by wetness is different from a second magnetoacoustic frequency evoked when said sensing device is influenced with wetness.

25. (New) The sensing device of claim 24, where said sensing device comprises protective packaging preventing the magnetoelastic film from being exposed to mechanical forces affecting the absorbent structure and which forces otherwise may affect the magentoacoustic resonant frequency of the magnetoelastic film.

26. (New) The sensing device of claim 25, where said protective packaging is provided with one or more passages such that at least one chemical analyte found in body waste or body exudates can penetrate the package and reach the coating of the magentoelastic film.

27. (New) The sensing device of claim 26, where said one or more passages are pores, slots, or holes.

28. (New) The sensing device of claim 24, where said material is a mass changing material.

29. (New) The sensing device of claim 28, where said material is a mass changing material.

30. (New) The sensing device of claim 29, where said mass changing material changes its mass by dissolving when exposed to wetness.

31. (New) The sensing device of claim 24, where said material is a polymer.

32. (New) The sensing device of claim 31, where said polymer is a wetness sensitive polymer selected from the group consisting of linear and hydrophilic polymers or chemically/physically cross-linked swellable polymer gels based on polyvinyl alcohol, polyvinyl pyrrolindone, polyethylene oxide and copolymers thereof, polyurethane, polyamides, starch and derivatives thereof, cellulose and derivative thereof, polysaccharides, proteins, polyacrylonitrile, acrylate based polymers, and mixtures thereto.

33. (New) The sensing device of claim 24, where a permanent magnet is included in said sensing device.

34. (New) The sensing device of claim 32, where said magnet is arranged in connection with the magnetoelastic film.

35. (New) The sensing device of claim 33, where said magnet is used for providing a magnetic bias field.